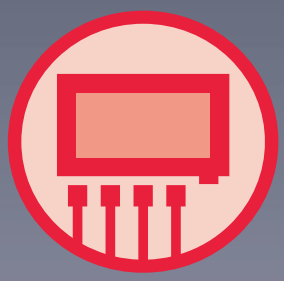
16 Port Nway Fast Ethernet PoE Web Smart Switch

Model: 065-7532PoE



Active

User‘s Guide

SIGNAMAX™
CONNECTIVITY SYSTEMS

FCC Warning

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates and radiates radio frequency energy and, if not installed and used in accordance with the user's manual, it may cause interference in which case users will be required to correct interference at their own expenses.

CE Warning

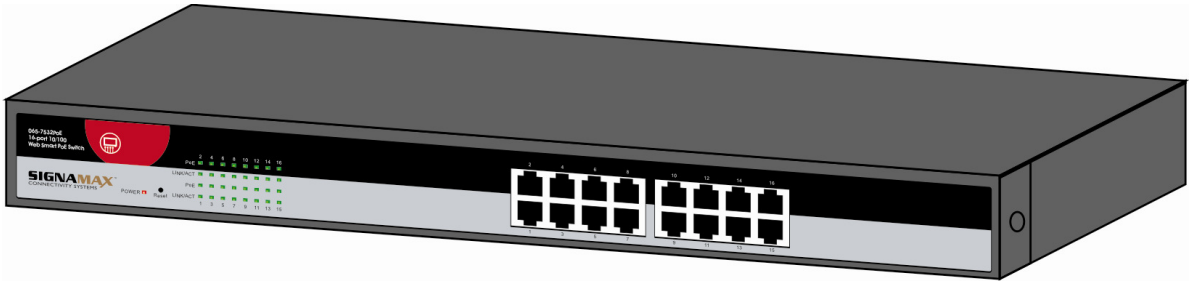
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Introduction

065-7532PoE switch provides 16 10/100M ports. 065-7532PoE switch was designed for easy installation and high performance in an environment where traffic is on the network and the number of users increases continuously.

065-7532PoE switch consists of 16 PSE/PoE ports. That can solve the limitation of the power outlet location and offer the system designer a flexible solution to locate the network device everywhere.

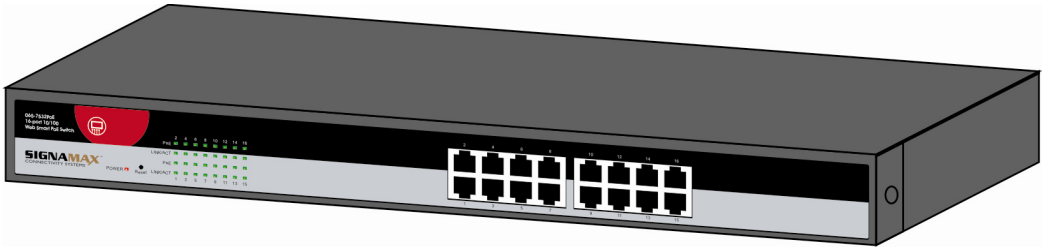
The rack-mount size was specifically designed for medium to large workgroups. 065-7532PoE switch can be installed where space is limited; moreover it provides smooth network migration and easy upgrade to network capacity. The 19” size can be rack-mount on 19” cabinet.



Package Contents

Before you start to install this switch, please verify your package that contains the following items:

- One 065-7532PoE PoE Switch
- One Power Cord
- One CD with User's Manual



16 Port Switch

Power Cord

CD with User's Manual

Note: If any of these items is found missing or damaged, please contact your local supplier for replacement.

Key Features

- 16 Port 10/100M Nway (Auto-negotiation) Switch
- 16 PSE/PoE function ports
- Supporting the power Max. 15.4 W for each PSE/PoE port
- 19” rack-mount size
- Auto-learn of networking configurations
- Auto-detect full/half-duplex modes for any port
- Dedicated full-duplex 200Mbps bandwidth
- Store-and-Forward switching methods
- IEEE 802.3x flow control for full-duplex and back-pressure flow control for half-duplex
- Non-blocking & Non-head-of-line blocking full wire speed forwarding
- Auto-MDI/MDI-X function for any port
- Smart plug & play

Front Panel (LEDs)

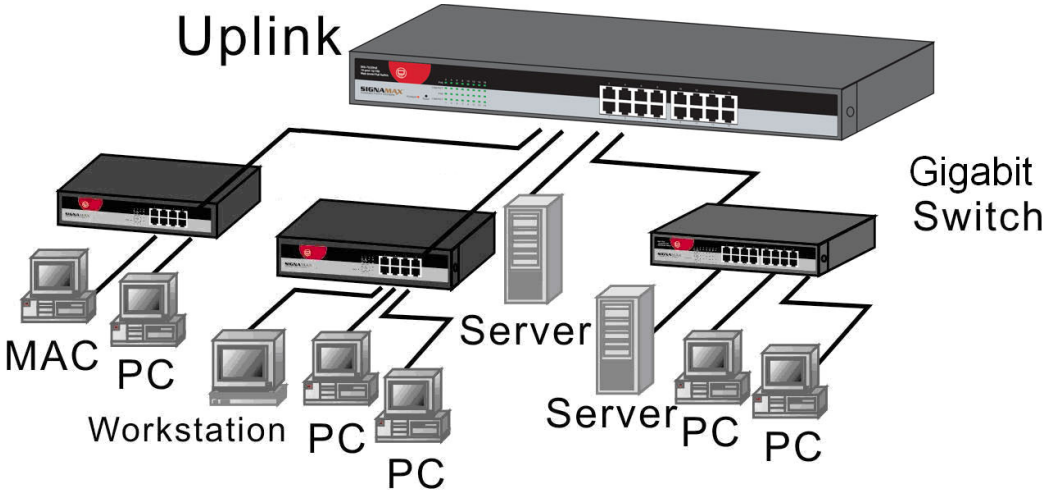
LED Indicators of 16 Port PoE 10/100/1000M Switch

LED	Status	Description
Power	On	Power is on.
	Off	Power is off.
LINK/ACT	On	Port is for connection.
	Off	No connection.
	Flashing	Data is transmitting or receiving
PoE	On	Port is linked to Power Device
	Off	No Power Device is connected

Connections

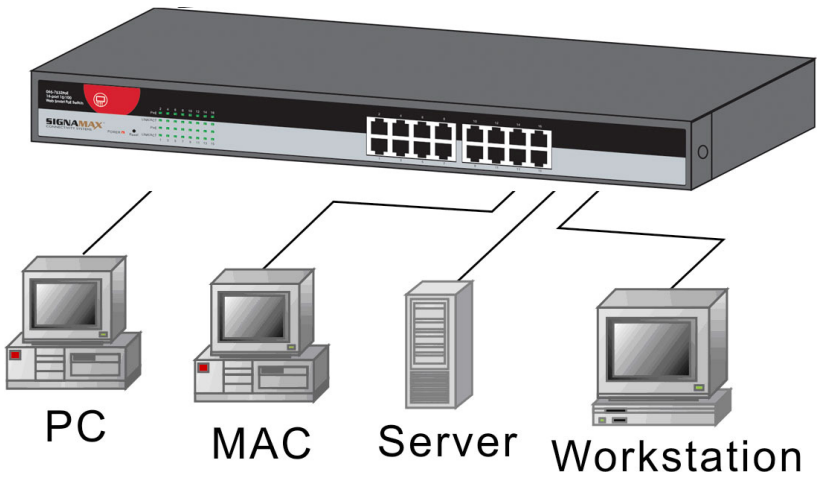
Switch/Hub to 065-7532PoE PoE Fast Ethernet Switch

065-7532PoE switch provides automatic crossover detection functionality for any port. It is simple and friendly to up-link to another switch without crossover cable.



PC/Other devices to 065-7532PoE PoE Fast Ethernet Switch

Via a twisted pair cable straight through, 065-7532PoE switch can be connected to PCs, servers and other network devices.



Power Device to 065-7532 PoE Fast Ethernet Switch and

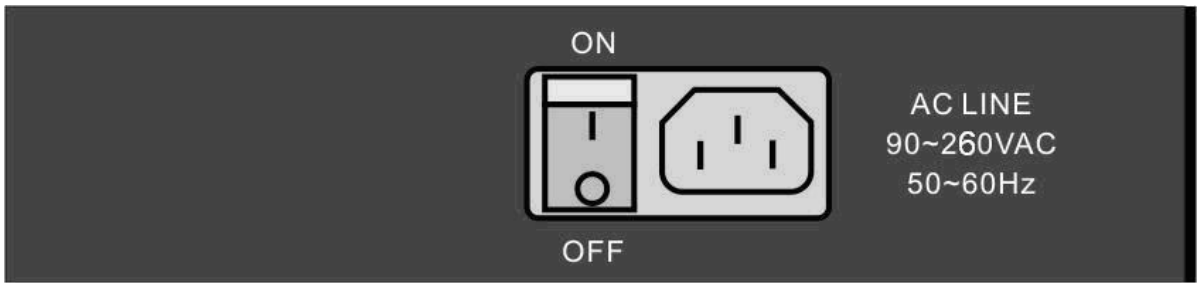
getting 48V power source through Cat.5 cables

Using Cat.5 twisted-pair cable to connect Power Device to the port 1~16 of this switch, and then this switch will supply 48V power to Power Device over Cat.5 twisted-pair cable. Please be noted Power Device should also comply with IEEE 802.3af.

Rear Panel (Power)

AC input

AC input (90~260V/AC, 50~60Hz) UL Safety



Technical Specifications

Standards	IEEE 802.3af IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3x Flow control
Features	Number of Ports: 16 PSE/PoE Ports MAC Address: 4K Buffer Memory: 1.625 Mb Method: Store and Forward
Filtering/ Forwarding Rates	100Mbps port – 148,800pps 10Mbps – 14,880pps
Transmission Media	10BaseT Cat. 3, 4, 5 UTP/STP 100BaseTX Cat. 5 UTP/STP
LED Indicators	Per Port: LINK/ACT, PoE

	ACT/Status Per Unit: Power
Power Input	100~240V/AC, 50~60Hz
Power Output	48V/DC Per Port Output – 15.4 W Max Per Port 16 Ports at Full 15.4 W Output Supported
Power Consumption	250 Watts (Max)
Dimensions	440 × 220 × 44 mm (L x W x H)
Weight	3.8 kg
Operating Temperature	0 to 55℃
Storage Temperature	-20 to 90℃
Humidity	10 to 90% RH (non-condensing)
Certifications	FCC Class A, CE

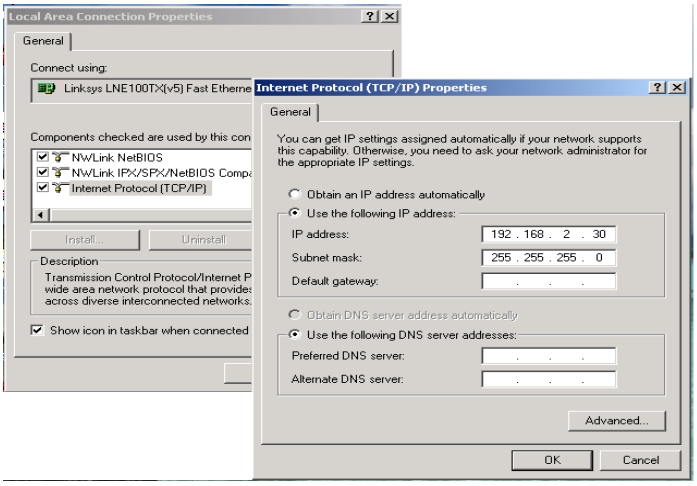
Web Smart Switch

Configure

Please follow the steps to configure this Web Smart switch.

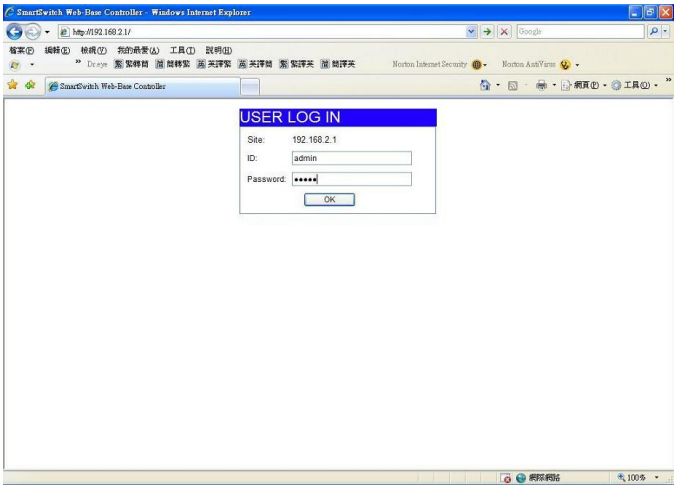
Step 1:
Use a twisted pair cable to connect this switch to your PC.

Step 2:
Set your PC's IP to 192.168.2.xx.


Local Area Connection Properties
General
Connect using:
Linksys LNE100TX(v5) Fast Etherne
Components checked are used by this con
NWLink NetBIOS
NWLink IPX/SPX/NetBIOS Compa
Internet Protocol (TCP/IP)
Install...
Uninstall
Description
Transmission Control Protocol/Internet P
wide area network protocol that provides
across diverse interconnected networks.
Show icon in taskbar when connected
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 2 . 30
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Step 3:

Open the web browser (like IE…), and go to 192.168.2.1 site, and then you will see the login screen.



Key in the ID and the password to pass the authentication,

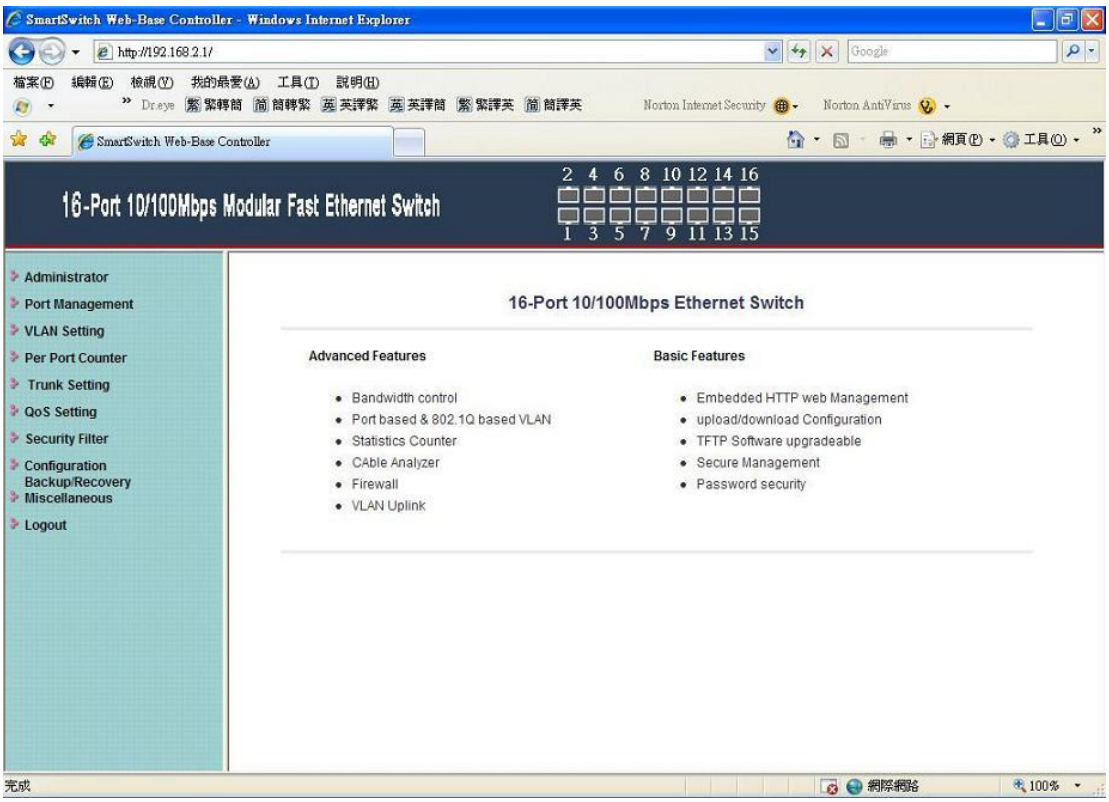
ID: admin
Password: admin

After the authentication procedure, the home page shows up.

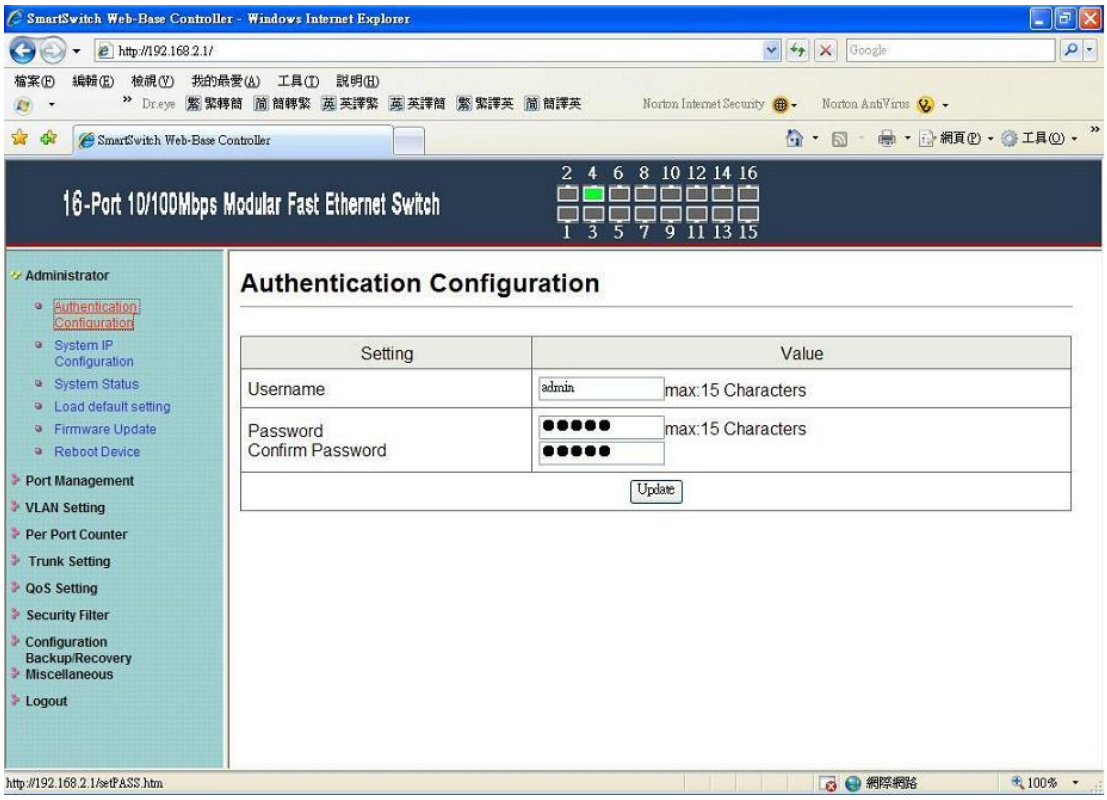
Step 4:

On the following home page, select the configuration by clicking the icon. It includes,

- Administrator
- Port Management
- VLAN Setting
- Per Port Counter
- Trunk Setting
- QoS Setting
- Security Filter
- Configuration Backup/Recovery
- Miscellaneous
- Logout

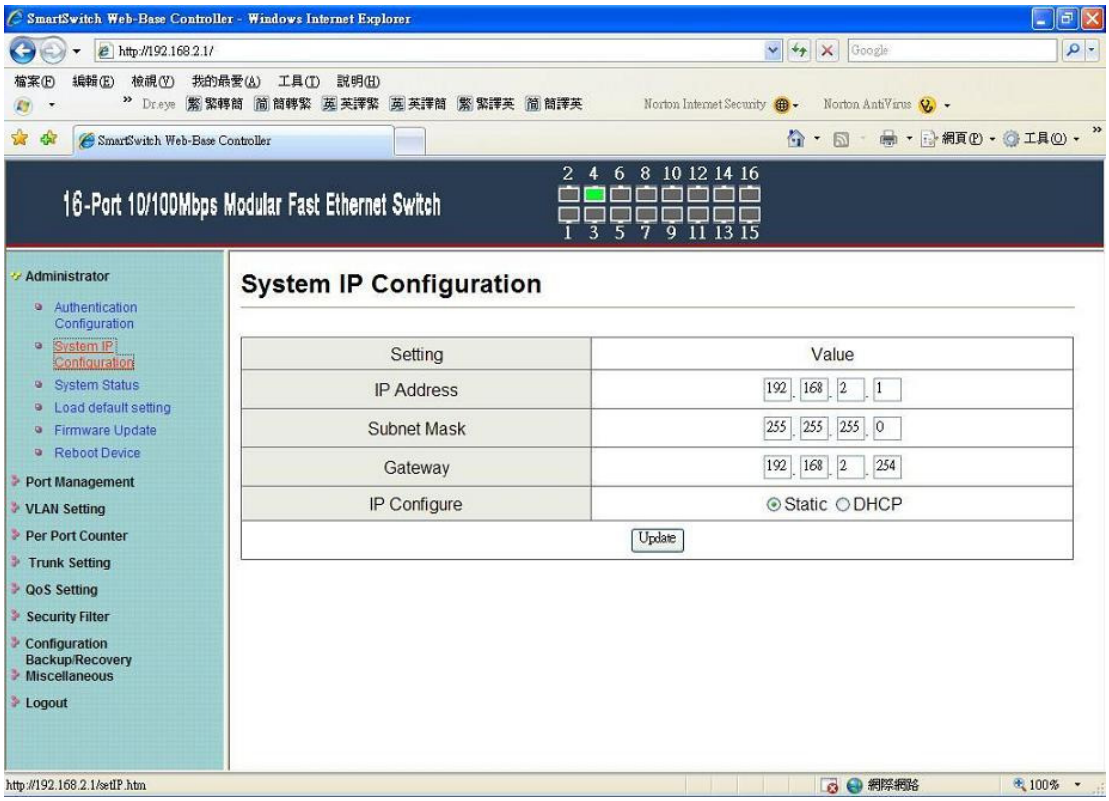


Administrator: Authentication Configuration



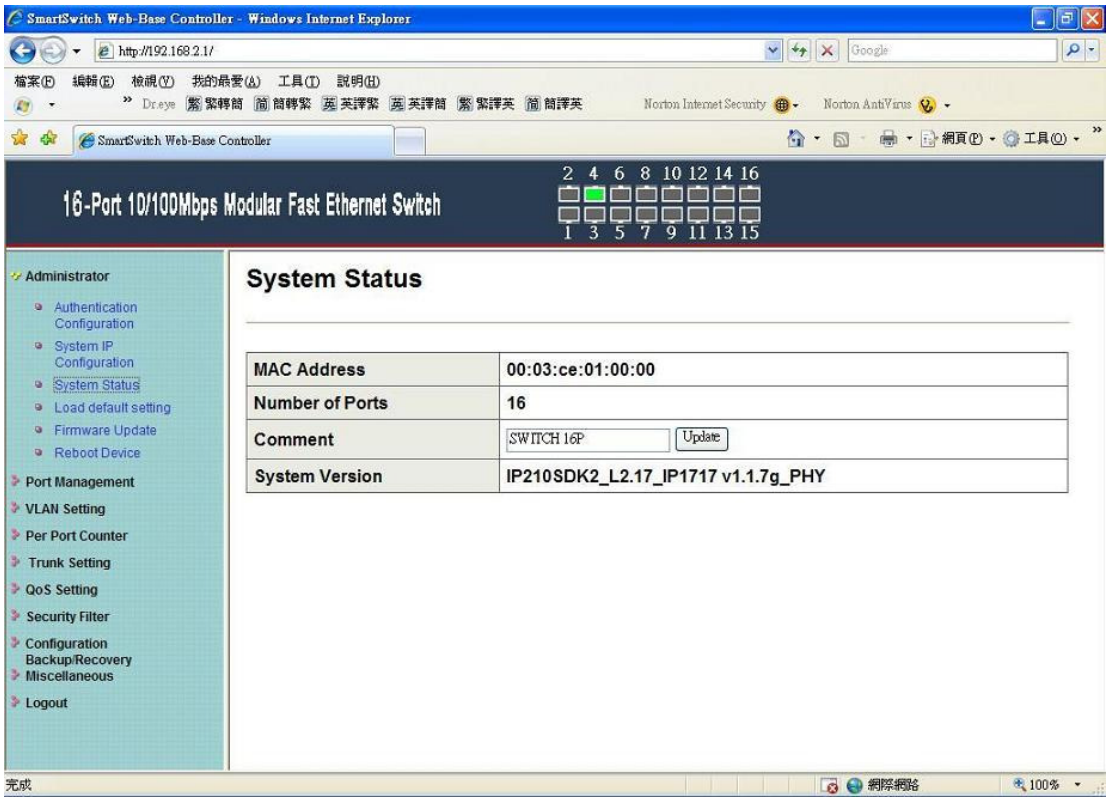
You can change the user name and the password, and click “Update” to confirm the new change. After that, you can reset the switch by power off and then power on to take the new user name and the password effectively.

Administrator: System IP Configuration



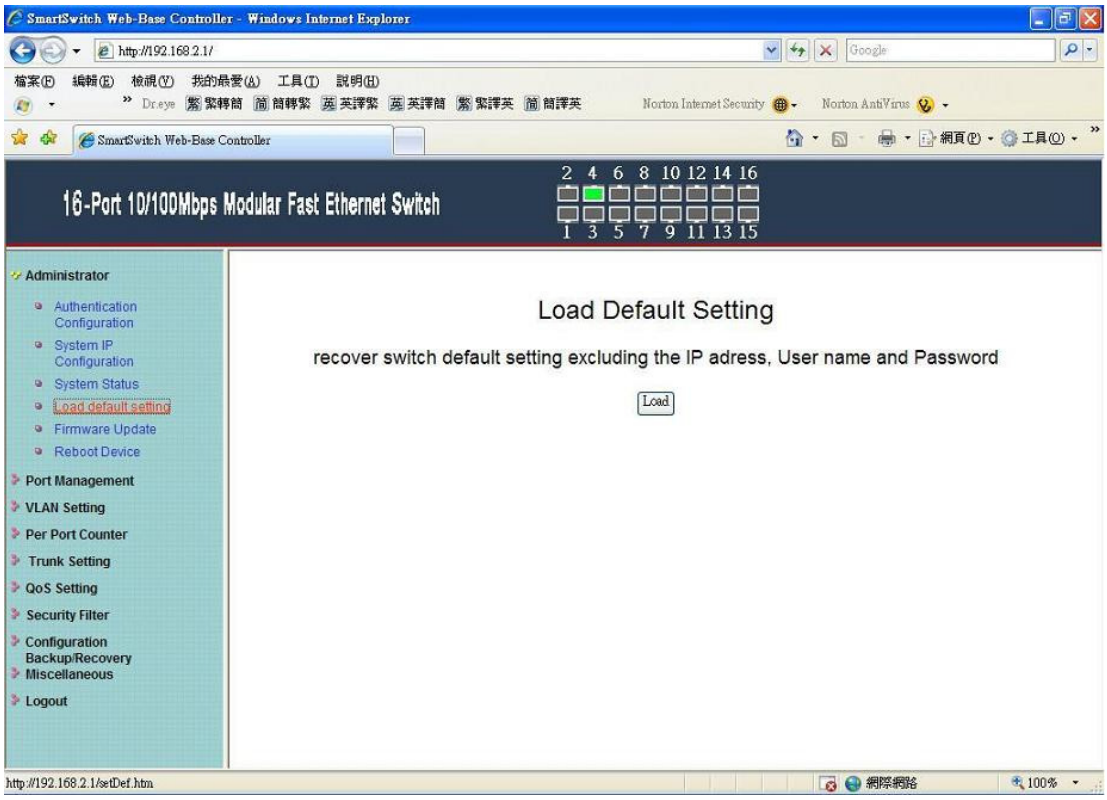
You can change the IP address by typing the new IP address or select DHCP IP configuration and click “Update” to confirm the new change, and then the message will show “Setting Process OK!!”, After that, you should reset this switch by power off and then power on it to complete the new change.

Administrator: System Status



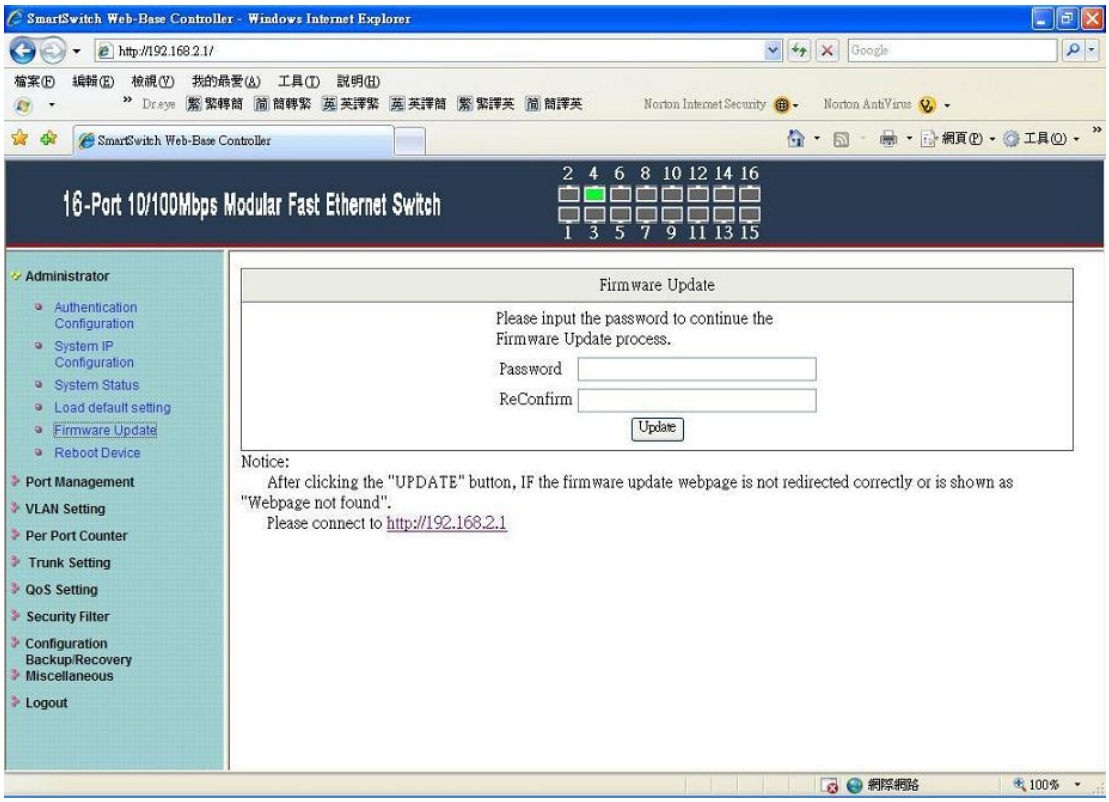
It shows this switch MAC address and system version. You can change the new comment of this switch by typing the new comment and click “Update” to confirm the new change.

Administrator: Load Default Setting



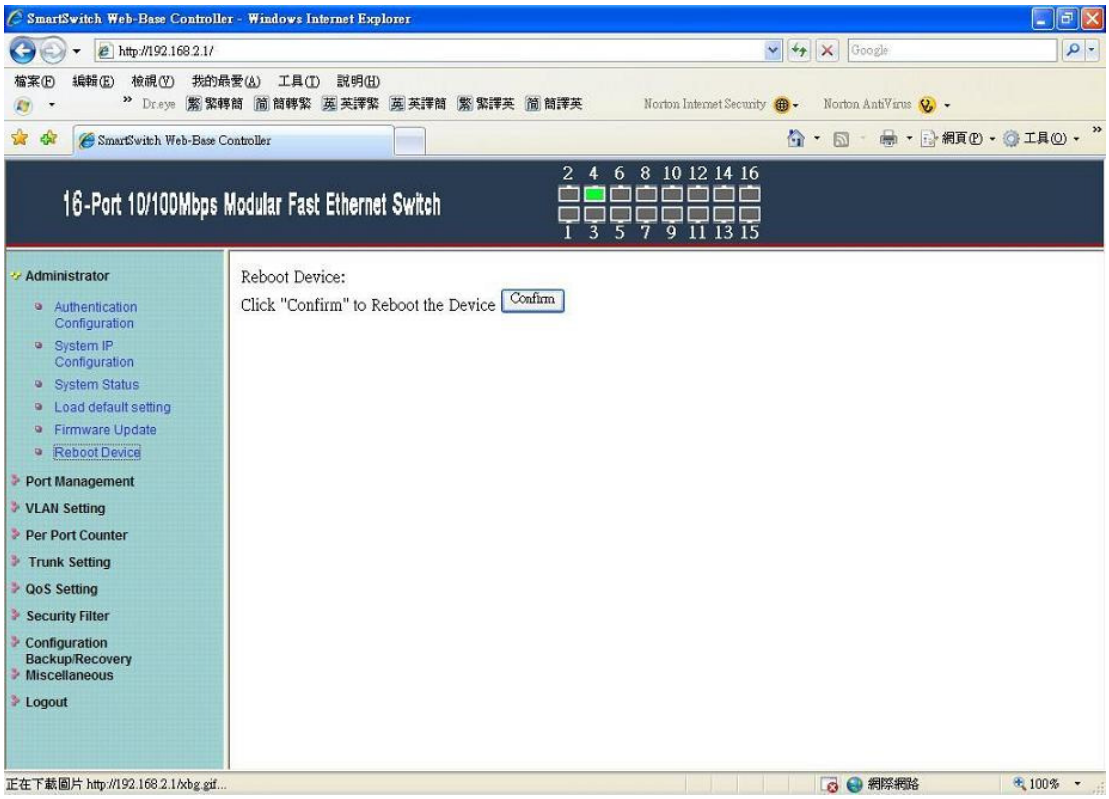
You can click “Load” to load the factory default setting, and then reset the switch by power off and then power on to take it effectively.

Administrator: Firmware Update



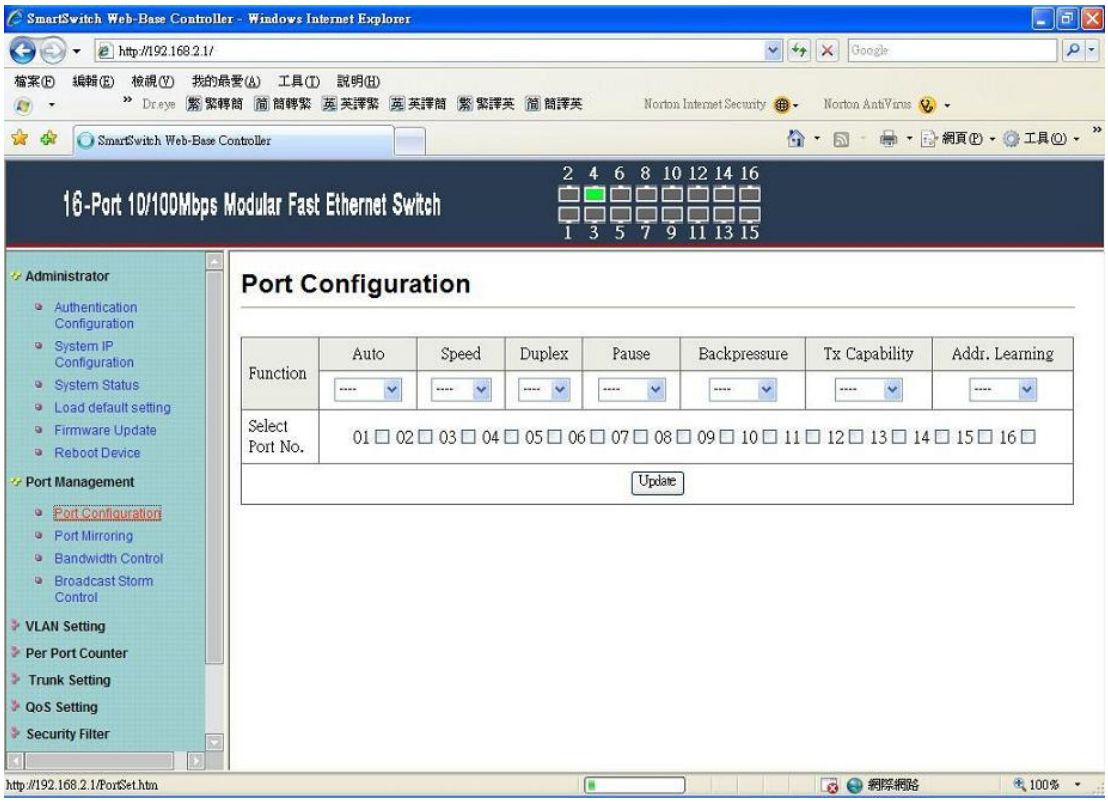
Follow the instruction on the screen to update the new firmware. Please contact with your sales agents to get the latest firmware information.

Administrator: Reboot Device



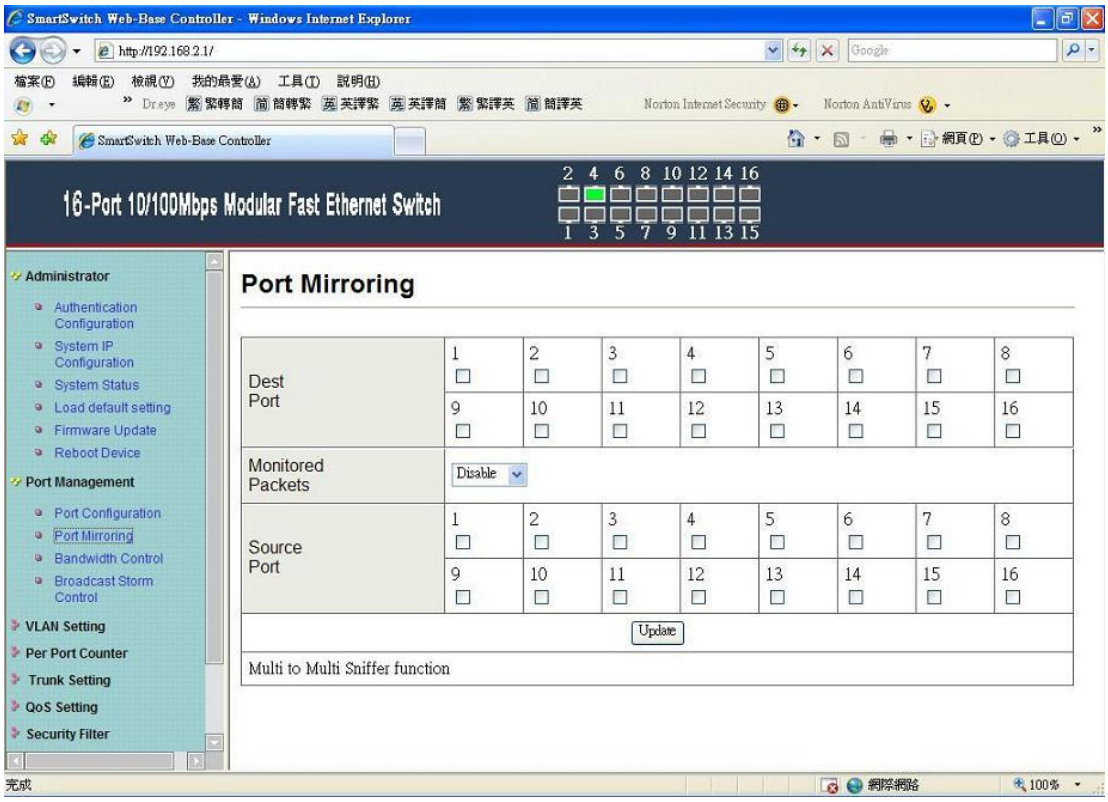
You can click “Confirm” to reboot the device.

Port Management: Port Configuration



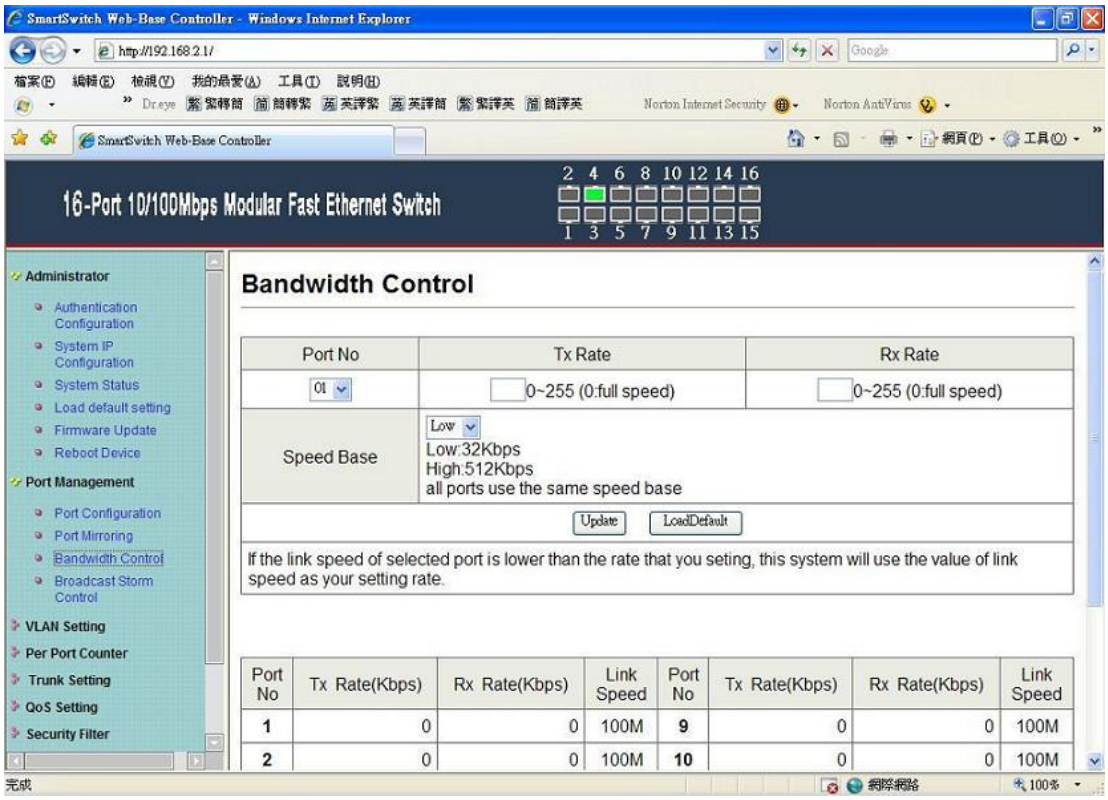
Select the “Port No.” which you want to configure the mode below,
“Auto-Negotiation” – you can enable/disable this function of the port.
“Speed” – you can select the 10M or 100M mode of the port.
“Duplex” - you can select the port is full or half-duplex mode.
“Pause” - you can enable/disable the port.
“Backpressure” – you can enable/disable the backpressure of the port.
“Tx Capability” – you can enable/disable TX capability of the port.
“Addr. Learning” – you can enable/disable this function of the port.

Port Management: Port Mirroring



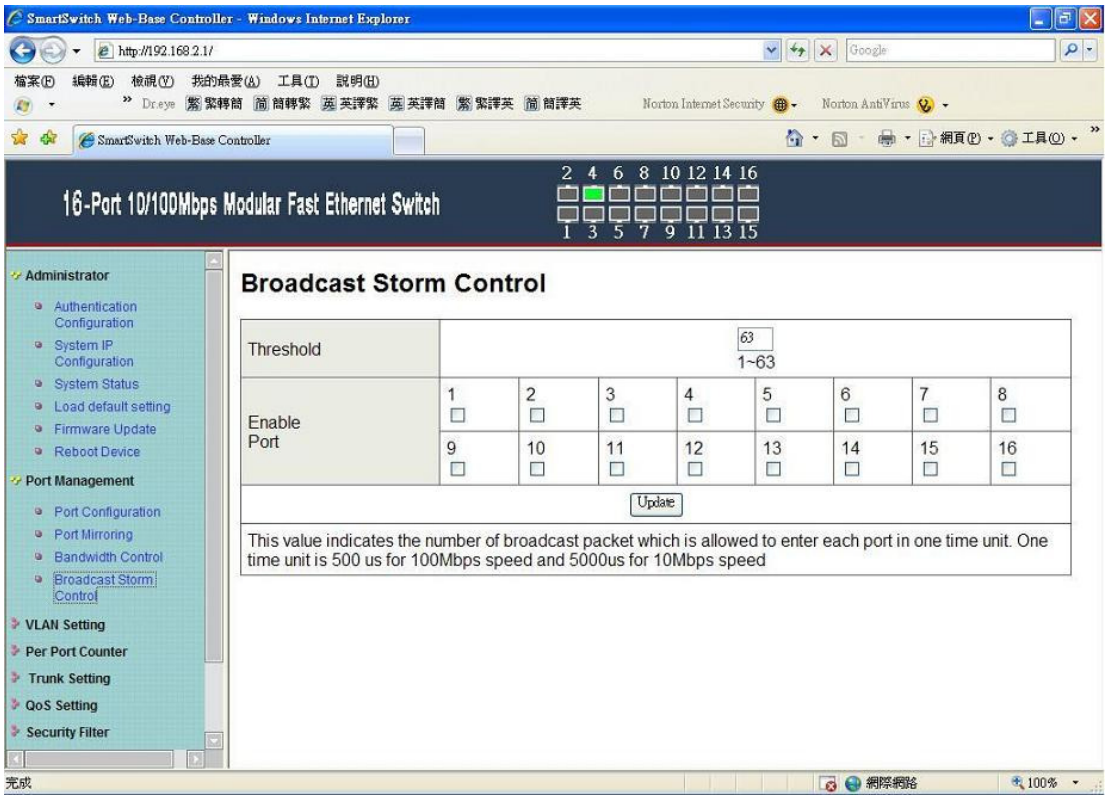
Port Mirroring is used to mirror traffic, RX, TX or TX&RX, from Source port to Destination port for analysis.
Select the Destination port from port 1 to port 16, and then select the Source port by clicking the checking box of the port.

Port Management: Bandwidth Control



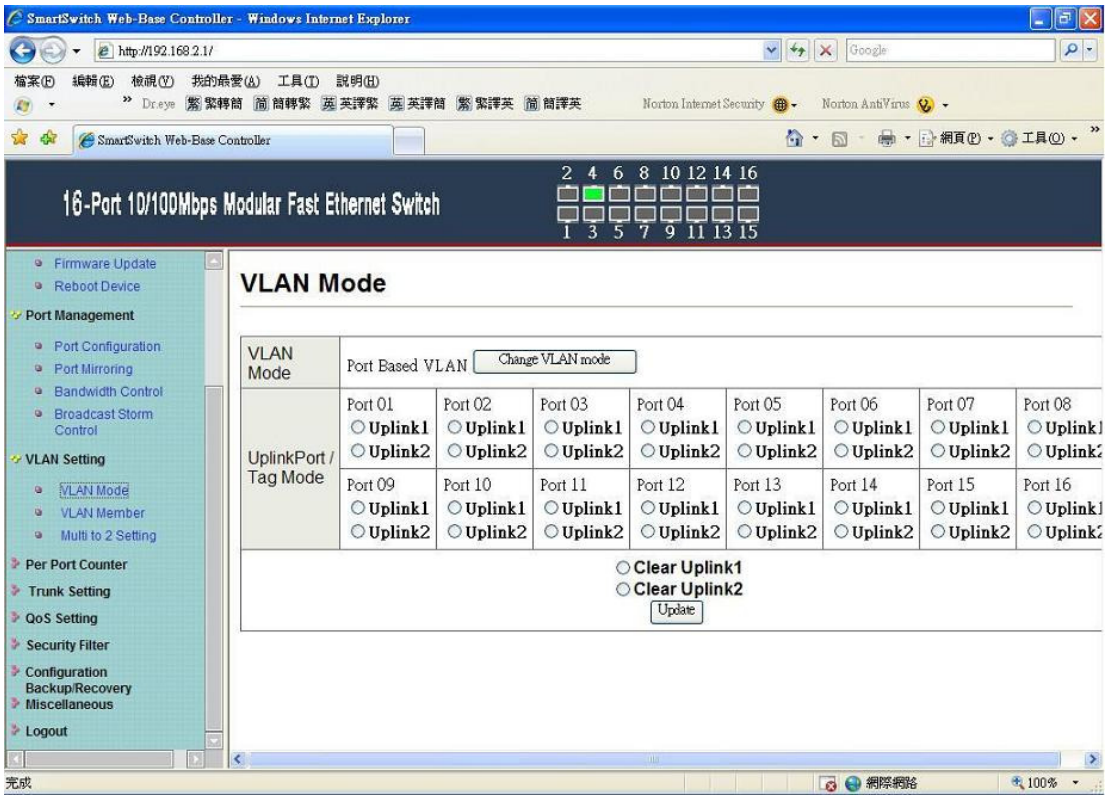
Select the “Port No.” which you want to configure the mode below,
“TX Rate” is meant you can set the different transmission rate of this selected port and choose the speed from 1~255 based on two speed levels.
“RX Rate” is meant you can set the different receiving rate of this selected port and choose the speed from 1~255 based on two speed levels.

Port Management: Broadcast Storm Control


SmartSwitch Web-Base Controller - Windows Internet Explorer
http://192.168.2.1/
SmartSwitch Web-Base Controller
16-Port 10/100Mbps Modular Fast Ethernet Switch
2 4 6 8 10 12 14 16
1 3 5 7 9 11 13 15
Administrator
Authentication Configuration
System IP Configuration
System Status
Load default setting
Firmware Update
Reboot Device
Port Management
Port Configuration
Port Mirroring
Bandwidth Control
Broadcast Storm Control
VLAN Setting
Per Port Counter
Trunk Setting
QoS Setting
Security Filter
Broadcast Storm Control
Threshold
63
1~63
Enable Port
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
Update
This value indicates the number of broadcast packet which is allowed to enter each port in one time unit. One time unit is 500 us for 100Mbps speed and 5000us for 10Mbps speed

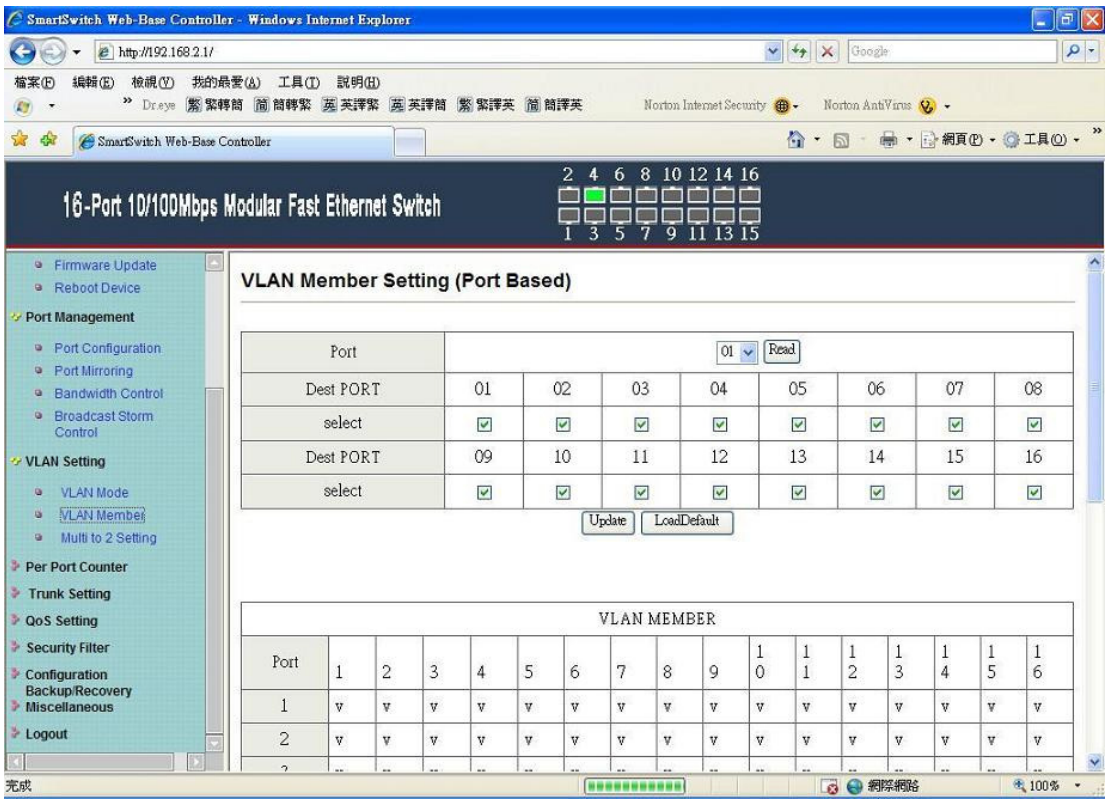
You can set the threshold of per port to define the status of broadcast packets by clicking “Update”.

VLAN Setting: VLAN Mode



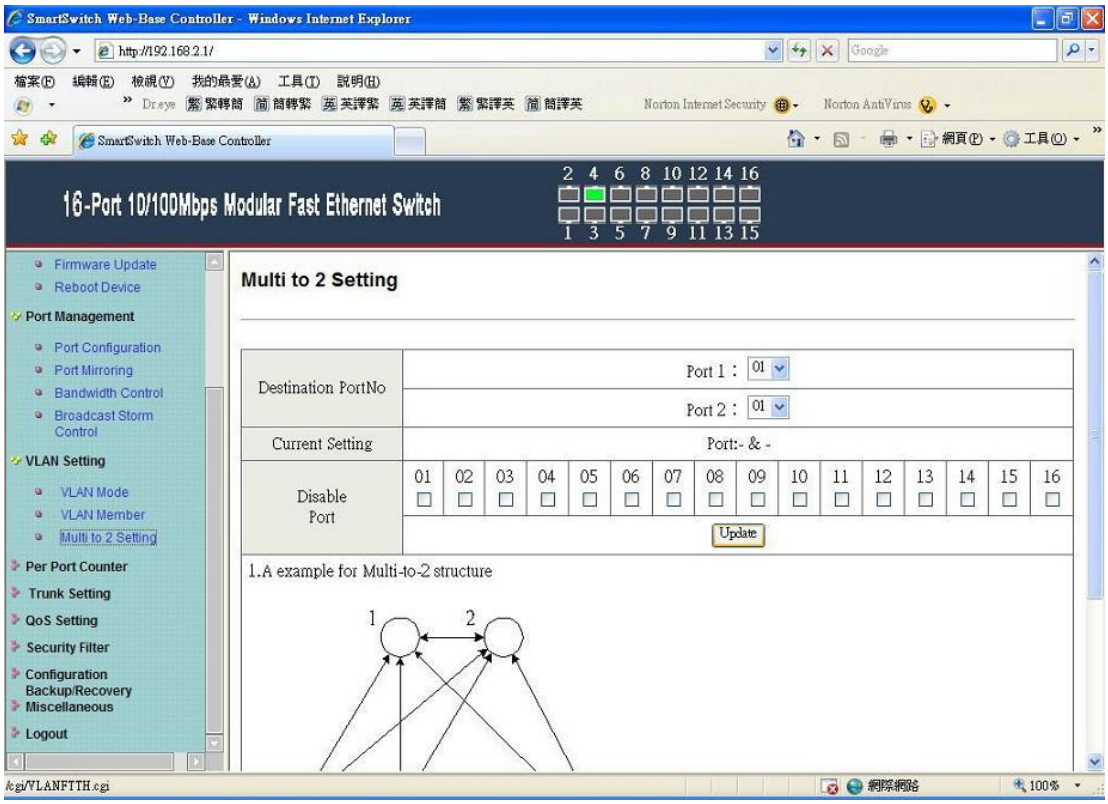
There are two VLAN modes, Port Based VLAN and Tagged VLAN, by clicking “Change VLAN mode” to select the mode you want.

VLAN Setting: VLAN Member Setting (Port Based)


SmartSwitch Web-Base Controller - Windows Internet Explorer
http://192.168.2.1/
SmartSwitch Web-Base Controller
16-Port 10/100Mbps Modular Fast Ethernet Switch
2 4 6 8 10 12 14 16
1 3 5 7 9 11 13 15
Firmware Update
Reboot Device
Port Management
Port Configuration
Port Mirroring
Bandwidth Control
Broadcast Storm Control
VLAN Setting
VLAN Mode
VLAN Member
Multi to 2 Setting
Per Port Counter
Trunk Setting
QoS Setting
Security Filter
Configuration Backup/Recovery
Miscellaneous
Logout
VLAN Member Setting (Port Based)
Port
01
Read
Dest PORT 01 02 03 04 05 06 07 08
select
Dest PORT 09 10 11 12 13 14 15 16
select
Update
LoadDefault
VLAN MEMBER
Port 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 v v v v v v v v v v v v v v v v
2 v v v v v v v v v v v v v v v v

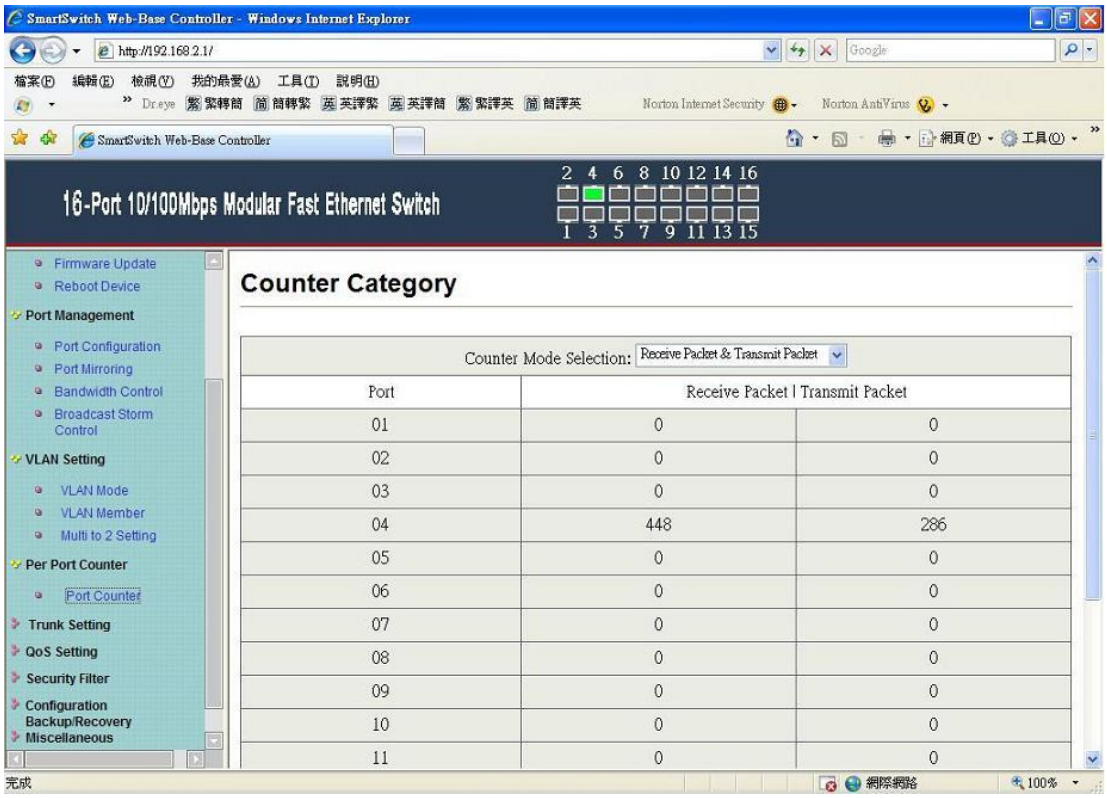
You can select a group, and then click the port number which you want to put it into the selected VLAN group.

VLAN Setting: Multi to 2 Setting



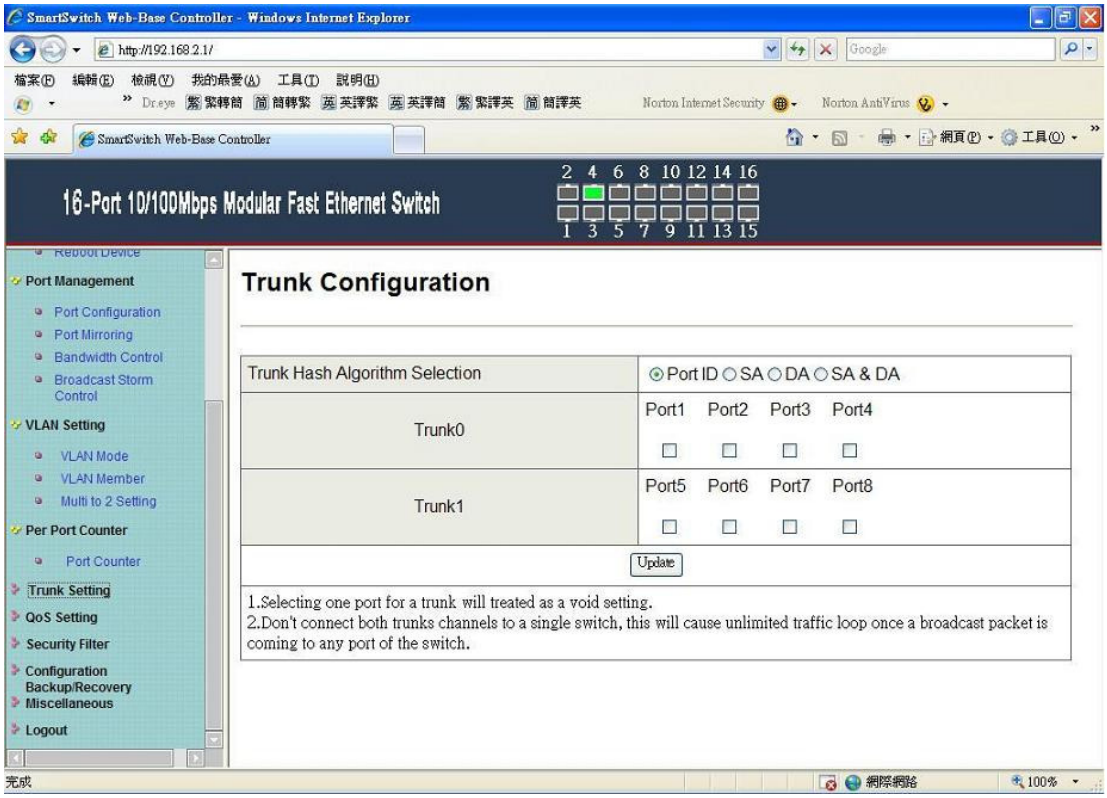
This is a special design for easily setting the switch VLAN into “VLAN Per Port“. After this setting, all ports can only connect to the destination port.

Per Port Counter: Counter Category



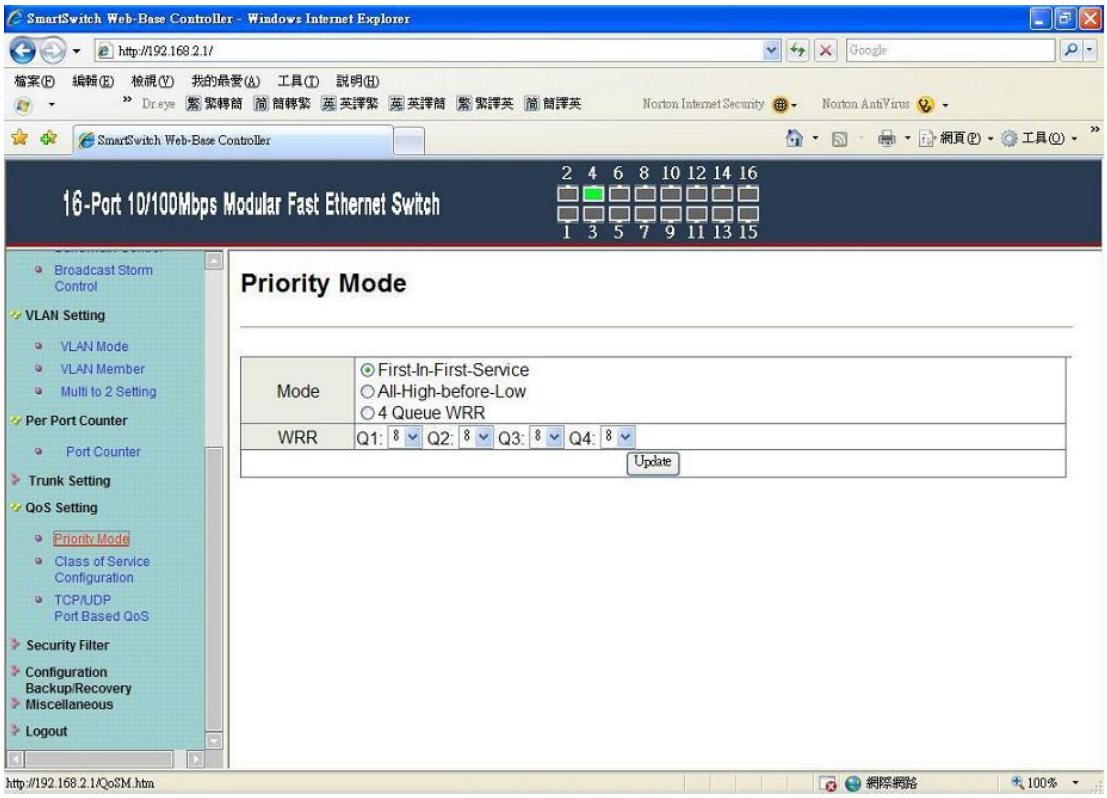
You can read the transmitting and receiving packet of the connecting port.

Trunk Setting: Trunk Configuration


SmartSwitch Web-Base Controller - Windows Internet Explorer
http://192.168.2.1/
SmartSwitch Web-Base Controller
16-Port 10/100Mbps Modular Fast Ethernet Switch
2 4 6 8 10 12 14 16
1 3 5 7 9 11 13 15
Port Management
Port Configuration
Port Mirroring
Bandwidth Control
Broadcast Storm Control
VLAN Setting
VLAN Mode
VLAN Member
Multi to 2 Setting
Per Port Counter
Port Counter
Trunk Setting
QoS Setting
Security Filter
Configuration Backup/Recovery
Miscellaneous
Logout
Trunk Configuration
Trunk Hash Algorithm Selection
Port ID SA DA SA & DA
Trunk0
Port1 Port2 Port3 Port4
Trunk1
Port5 Port6 Port7 Port8
Update
1.Selecting one port for a trunk will treated as a void setting.
2.Don't connect both trunks channels to a single switch, this will cause unlimited traffic loop once a broadcast packet is coming to any port of the switch.

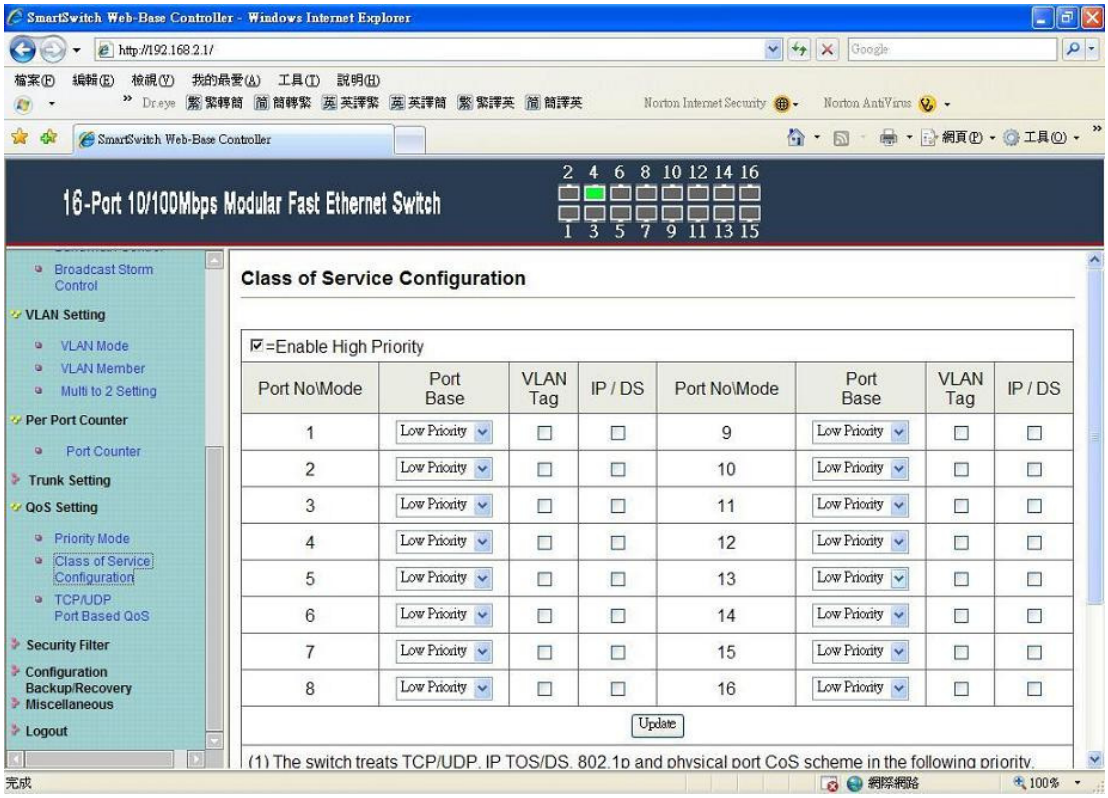
There are two groups to choose and the maximum ports of one group are 4. Set up port trunk group mode as below,
“Port ID” – you can select port number you want to include into the same group.
“SA” – you can select Source Address of the port you want to include into the same group.
“DA” – you can select Destination Address of the port you want to include into the same group.
“SA & DA” – you can select both Source Address and Destination Address of the port you want to include into the same group.

QoS Setting: Priority Mode



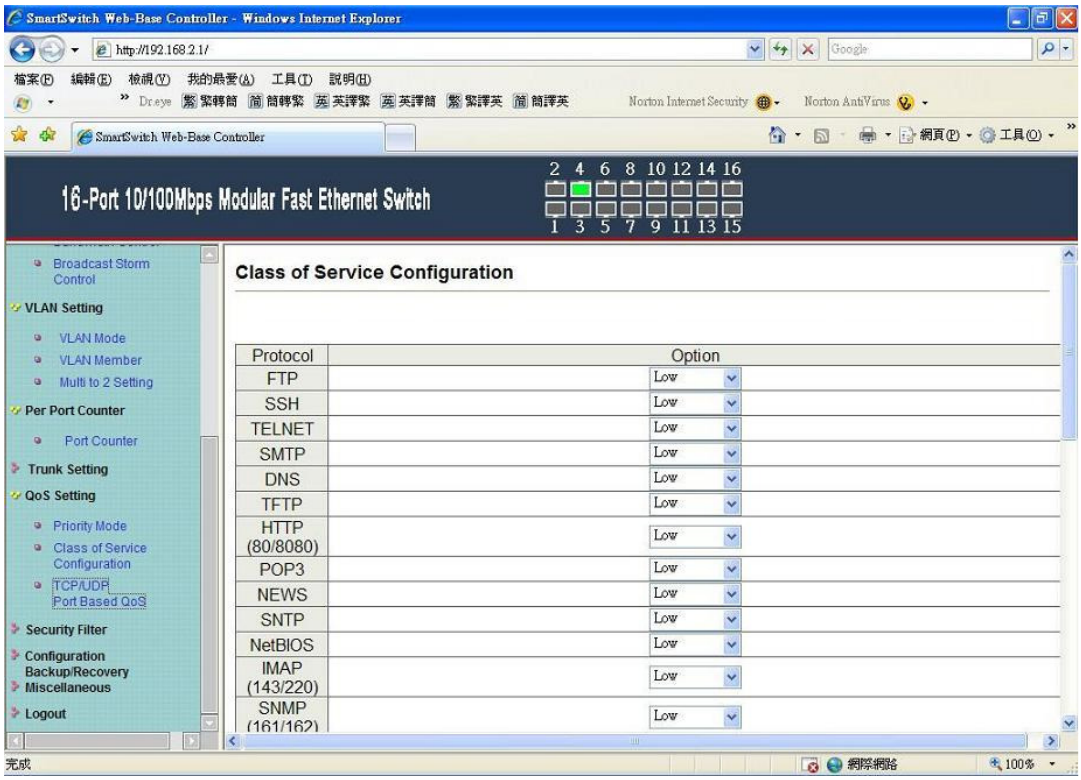
There are three Priority Modes to select as below,
“First-in-First-Out” – the first receiving packet will be firstly transmitted.
“All-High-before-Low” – packets set in high priority mode will be firstly transmitted completely before packets set in low priority mode.
“Weight-Round-Robin” – WRR, you can set the ratio of the transmitting packet for the low priority to high priority.

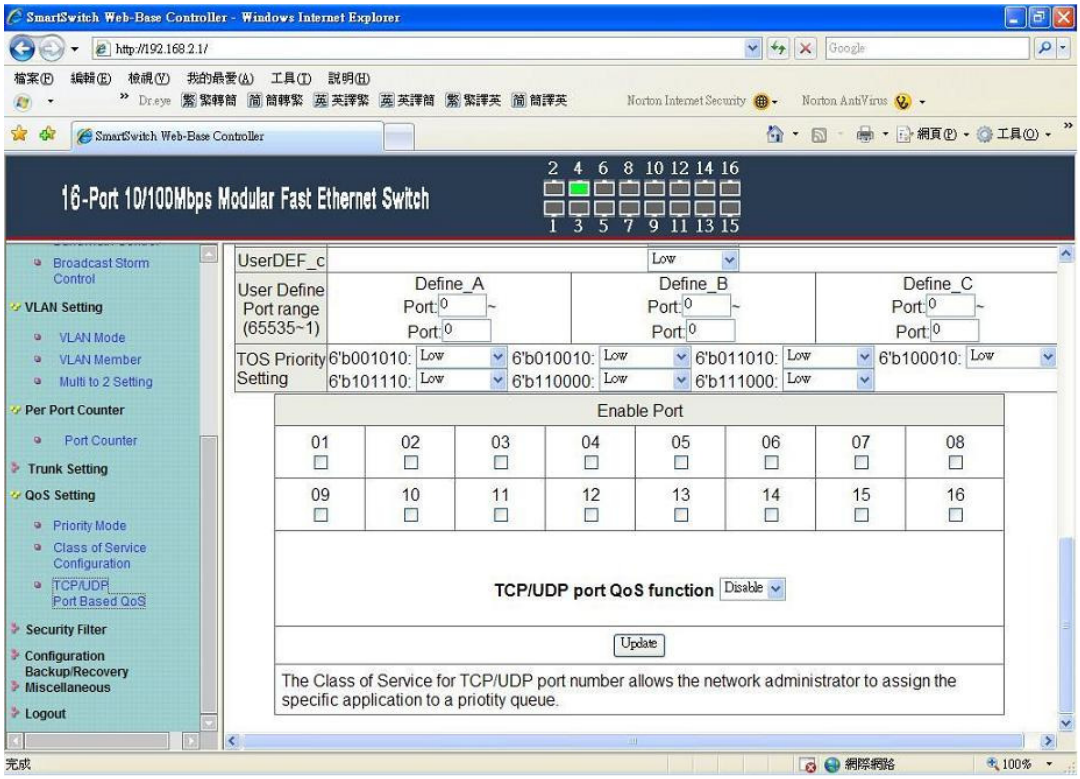
QoS Setting: Class of Service Configuration



You can set QoS mode of per port by different bases as below,
“Port Base” – you can select the port which you want to configure as high priority and then the packets of the port will be firstly transmitted.
“VLAN Tag” – you can select the port which you want to configure as packets with special Tag will be firstly transmitted.
“IP/DS” – you can select the port which you want to configure as packet with special IP will be firstly transmitted.

QoS Setting: TCP/UDP Port Based

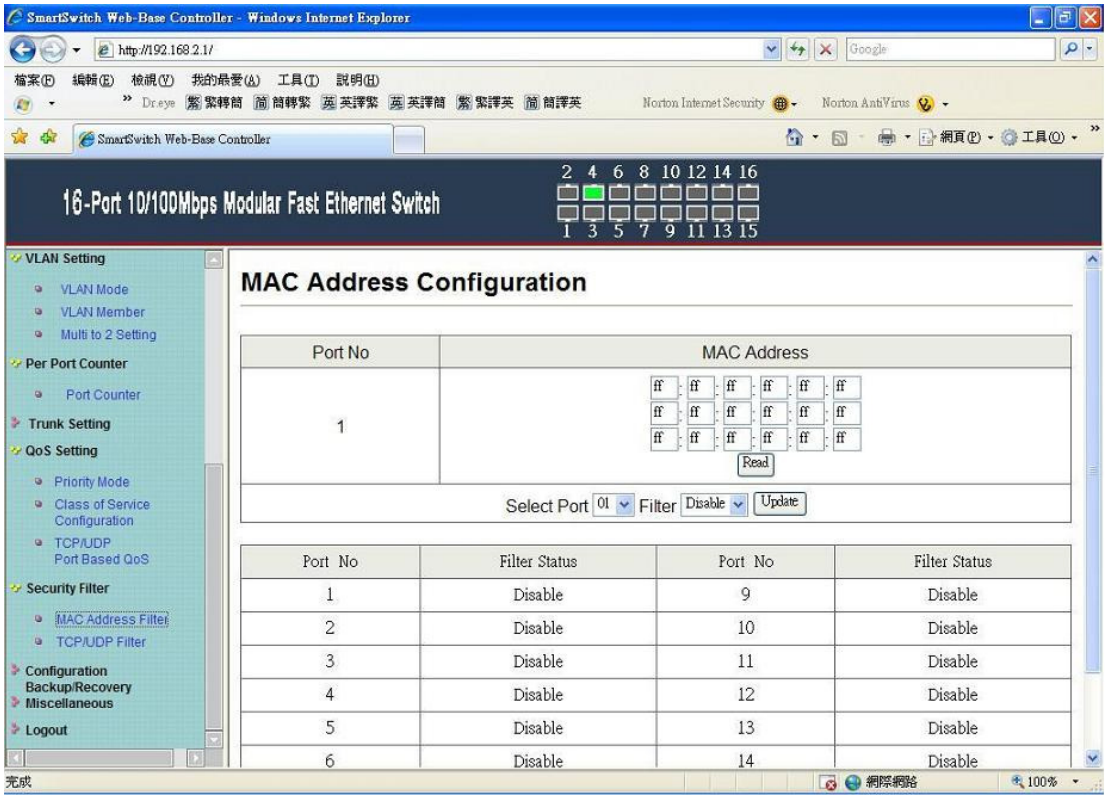




There are four modes of TCP/UDP priority to select as below, “F-I-F-O”- First-in-First-Out, the first receiving packet will be firstly

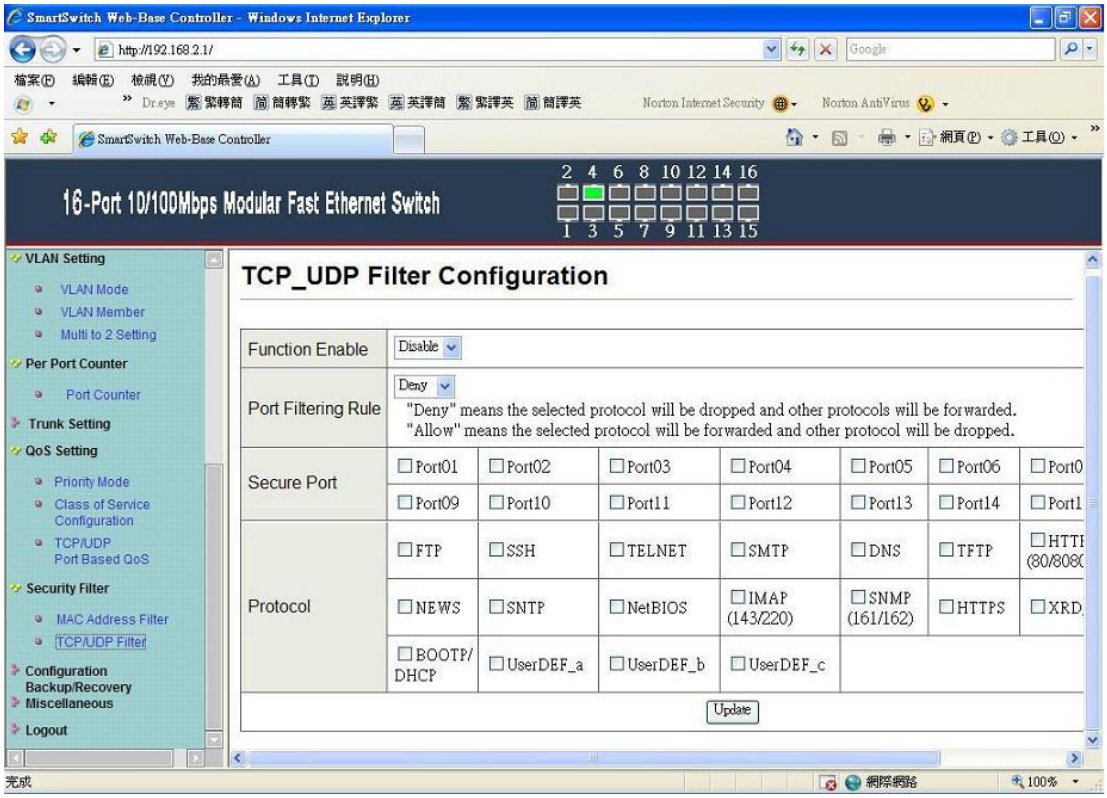
transmitted.
“Discard” – packets will be discarded.
“Low” – packets with low priority will be transmitted after packets with high priority.
“High” – packets with high priority will be firstly transmitted.

Security Filter: MAC Address Filter



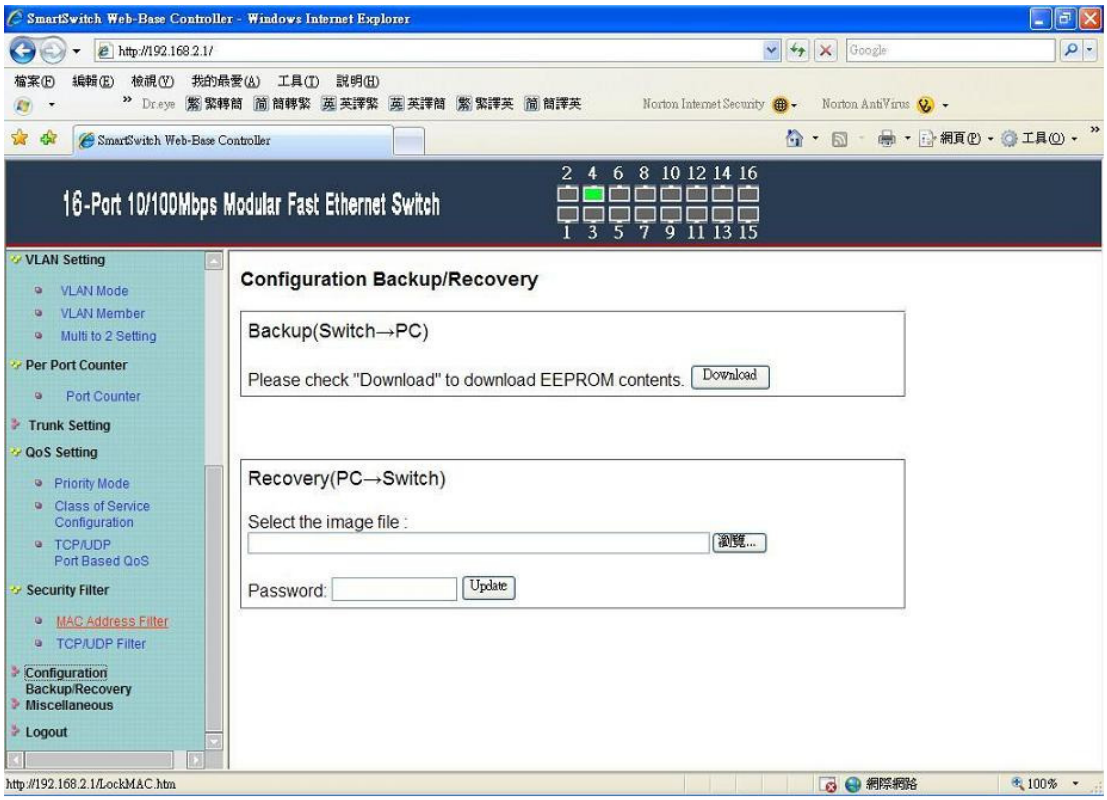
There are three MAC address tables to select and you can set special MAC address to activate on the selected port.
When this function is enabled, the port will record the first receiving source MAC address as the security MAC address and only allow the packet which has this MAC address to activate on the port.

Security Filter: TCP_UDP Filter Configuration



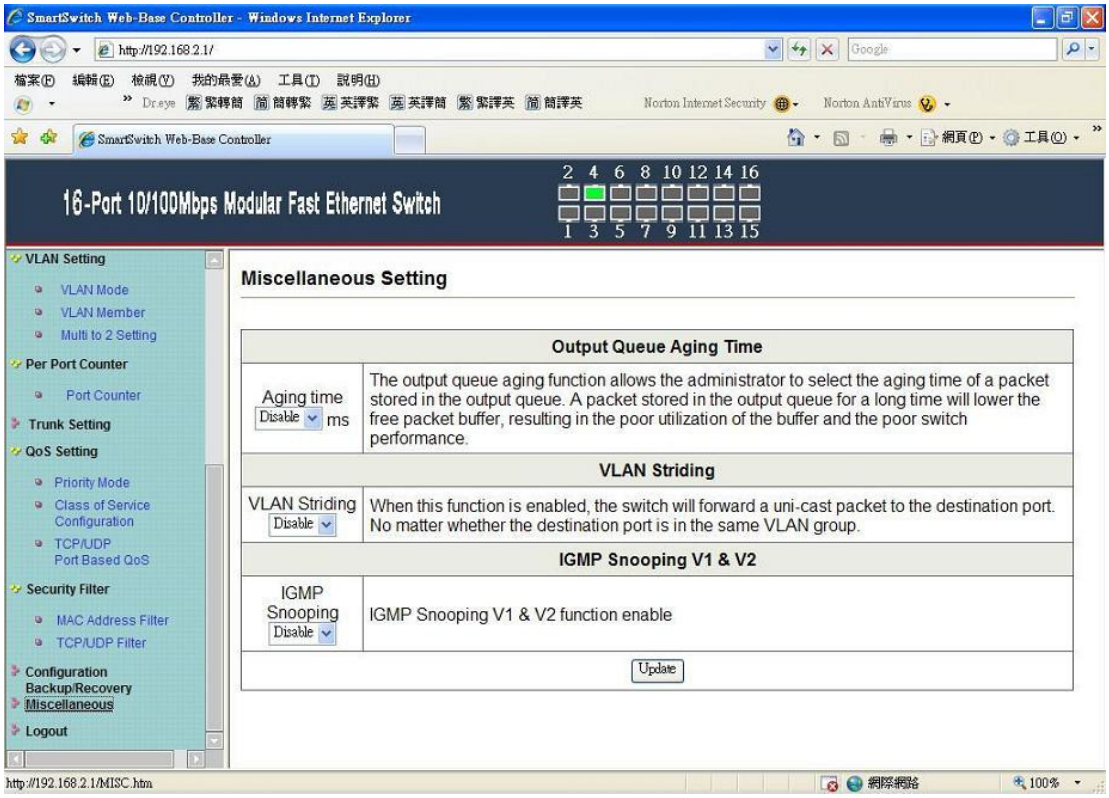
You can enable or disable this function of per port. If you enable this function, there are two modes as below,
“Negative Filter Mode” – packets compliant with protocol will be dropped.
“Positive Filter Mode” - packets compliant with protocol will be forwarded.

Configuration Backup/Recovery



Follow the instruction on the screen to update the original setting.

Miscellaneous: Miscellaneous Setting


SmartSwitch Web-Base Controller - Windows Internet Explorer
http://192.168.2.1/
SmartSwitch Web-Base Controller
16-Port 10/100Mbps Modular Fast Ethernet Switch
2 4 6 8 10 12 14 16
1 3 5 7 9 11 13 15
VLAN Setting
VLAN Mode
VLAN Member
Multi to 2 Setting
Per Port Counter
Port Counter
Trunk Setting
QoS Setting
Priority Mode
Class of Service Configuration
TCP/UDP Port Based QoS
Security Filter
MAC Address Filter
TCP/UDP Filter
Configuration Backup/Recovery
Miscellaneous
Logout
Miscellaneous Setting
Output Queue Aging Time
Aging time
Disable
ms
The output queue aging function allows the administrator to select the aging time of a packet stored in the output queue. A packet stored in the output queue for a long time will lower the free packet buffer, resulting in the poor utilization of the buffer and the poor switch performance.
VLAN Striding
VLAN Striding
Disable
When this function is enabled, the switch will forward a uni-cast packet to the destination port. No matter whether the destination port is in the same VLAN group.
IGMP Snooping V1 & V2
IGMP Snooping
Disable
IGMP Snooping V1 & V2 function enable
Update
http://192.168.2.1/MISC.htm

"Aging Time" - You can set queue aging time into different milliseconds or disable this function.
"VLAN Striding" – You can enable/disable this function.
"IGMP Snooping" – You can enable/disable this function.

Logout: You can click "Logout" to logout.